



## What is claimed is:

1. A composition comprising a peptide having the amino acid sequence  $X_1X_2X_3X_4X_5X_6X_7X_8$ , wherein:

 $X_1$  is hydrogen an amino-terminal blocking group, or one to twenty amino acid residues;

 $\mathbf{X}_2$ 

X<sub>2</sub> is an amino-acid selected from the group consisting of D, E, H, K, and R;

X<sub>3</sub> is an amino acid selected from the group consisting of E and D;

X<sub>4</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>5</sub> is an amino acid elected from the group consisting of I, L, and V;

 $X_6$  is an amino acid selected from the group consisting of M;

X<sub>7</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

and

X<sub>8</sub> is hydrogen, a carbox l-terminal blocking group, or one to twenty amino acid residues.

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2. The composition of claim 1, wherein:

X1 is hydrogen or an amino-terminal blocking group;

X<sub>2</sub> is an amino acid selected from the group consisting of D, E, and R;

X<sub>3</sub> is an amino acid selected from the group consisting of D and E;

 $X_4$  is I;

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 $X_5$  is I;

 $X_6$  is M;

X<sub>7</sub> is an amino acid selected from the group consisting of D and E; and

X<sub>8</sub> is hydrogen or a carboxyl-terminal blocking group.

3. The composition of claim 1, wherein:

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X<sub>1</sub> is hydrogen;

 $X_2$  is E;

 $X_3$  is E;

 $X_4$  is I;

 $X_5$  is I;



X7 is D; and

X<sub>8</sub> is hydrogen.

- 4. The composition of claim 1, further comprising a pharmaceutically acceptable carrier.
- 5. A method of affecting a biological process characterized by abnormal cell migration through a physiological barrier, said method comprising administering the composition of claim 1 to a mammal experiencing said biological process in an amount to affect said biological process.
- 6. The method of claim 5, wherein said biological process is selected from the group consisting of angiogenesis, organogenesis, ovulation, inflammation, cancer, tumor cell invasion and metastasis, and atherosclerosis.
  - 7. The method of claim 3, wherein said mammal is a human.
- 8. A method of inhibiting PAI-1-dependent adhesion of a cell to a tissue of a mammal, said method comprising administering to said tissue the composition of claim 1 in an amount to inhibit adhesion of said cell to said tissue.
- 9. The method of claim 8, wherein said tissue is in vivo in said mammal.
  - 10. The method of claim 8, wherein said mammal is a human.
- 11. A method of promoting clearance of scuPA from the surface of a mammalian cell, said method comprising administering the composition of claim 1 to said cell in an amount to promote clearance of said scuRA from said cell.
  - 12. The method of claim 11, wherein said cell is a human cell.
- 13. The method of claim 12, wherein said composition is administered in vivo in said human.
- 14. A method of impeding pathological migration of a cell in a mammal, said method comprising administering to said mammal the composition of claim 1 in an amount effective to impede pathological migration of said cell.

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- 15. The method of claim 14, wherein said composition is administered to said mammal at the site of a tumor in said mammal.
  - 16. The method of claim 14, wherein said mammal is a human.
- 17. A method of inhibiting PAI-1 activity in a tissue of a mammal, said method comprising administering to said tissue the composition of claim 1 in an amount effective to inhibit PAI-1 activity in said tissue.
  - 18. The method of claim 17, wherein said mammal is a human.
- 19. The method of claim 18, wherein said composition is administered in vivo in said human.
- 20. A kit comprising a peptide having the amino acid sequence  $X_1X_2X_3X_4X_5X_6X_7X_8$ , wherein:

X<sub>1</sub> is hydrogen, an amino-terminal blocking group, or one to twenty amino acid residues;

X<sub>2</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

X<sub>3</sub> is an amino acid selected from the group consisting of E and D;

X<sub>4</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>5</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>6</sub> is an amino acid selected from the group consisting of M;

X<sub>7</sub> is an amino acid selected from the group consisting of D, E, H, K, and R; and

X<sub>8</sub> is hydrogen, a carboxyl-terminal blocking group, or one to twenty amino acid residues, and an instructional material for using said kit

21. A composition comprising a combination of a peptide having the amino acid sequence  $X_1X_2X_3X_4X_5X_6X_7X_8$ , wherein:

 $X_1$  is hydrogen, an amino-terminal blocking group, or one to twenty amino acid residues;

X<sub>2</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

X<sub>3</sub> is an amino acid selected from the group consisting of E and D;

X<sub>4</sub> is an amino acid selected from the group consisting of I, L, and V;

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X<sub>5</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>6</sub> is an amino acid selected from the group consisting of M;

X<sub>7</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

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and

 $X_8$  is hydrogen, a carboxyl-terminal blocking group, or one to twenty amino acid residues, and

a thrombolytic agent.

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22. The composition of claim 21, wherein said thrombolytic agent is selected from the group consisting of tissue plasminogen activator, streptokinase, urokinase, the streptokinase derivative and staphylokinase.

23. A composition comprising a combination of a peptide having the amino acid sequence  $X_1X_2X_3X_4X_5X_6X_7X_8$ , wherein:

 $X_1$  is hydrogen, an amino-terminal blocking group, or one to twenty amino acid residues;

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X<sub>2</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

X<sub>3</sub> is an amino acid selected from the group consisting of E and D;

X<sub>4</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>5</sub> is an amino acid selected from the group consisting of I, L, and V;

X<sub>6</sub> is an amino acid selected from the group consisting of M;

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and

X<sub>7</sub> is an amino acid selected from the group consisting of D, E, H, K, and R;

 $X_8$  is hydrogen, a carboxyl-terminal blocking group, or one to twenty amino acid residues, and

an anti-coagulating agent.

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24. The composition of claim 23, wherein said anti-coagulating agent is selected from the group consisting of an agent which inhibits platelet function, and agent which inhibits the activity of thrombin, and agent which promotes the activity of activated protein kinase C, an anti-thrombin IN agent, and a tissue factor pathway inhibitor.

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